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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,484	04/02/2004	David M. Rinehart	AD6993 USNA	2326

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WILMINGTON, DE 19805

EXAMINER

GILBERT, WILLIAM V

ART UNIT	PAPER NUMBER
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3635

NOTIFICATION DATE	DELIVERY MODE
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09/04/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary	Application No. 10/817,484	Applicant(s) RINEHART ET AL.	
	Examiner William V. Gilbert	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>16 May 2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a final office action. Claims 2, 9-23 and 29 are cancelled. Claims 1, 3-8 and 24-28 are pending and examined.

Claim Objections

1. **Claim 1** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Dependent claim 1 does not further limit parent claim 24 in that no further structural limitation is provided in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Knight (U.S. Patent No. 2,388,786).

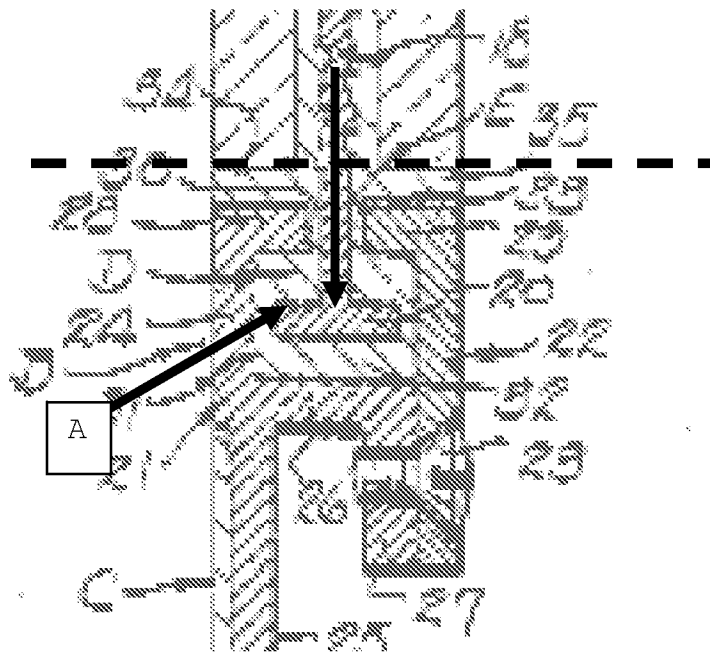
Claim 1: Knight discloses a glazing element comprising the glass laminate of claim 24 (as best understood by the examiner.)

Claim 3: the clip has a second extension ("A" from attached Fig. 2, below; note that it extends in numerous directions, including parallel to the layer, as shown by the arrow.)

Claim 24: Knight disclose a glass laminate (Fig. 2) comprising a transparent laminate (15) and at least one attachment means (18) for attaching the laminate to a support structure, the laminate has at least one layer of glass (15), the glass layer has a major exterior surface (the side exposed to the elements) and a major interior surface (side attached to member 17), a thermoplastic polymer interlayer (17) bonded to the attachment means and to the major interior surface of the glass, the attachment means is a clip (18) useful for aligning and holding the laminate in a retaining channel (Applicant should respectfully note that the retaining channel is not positively claimed, but is a statement of intended use), the clip has an interlocking extension (proximate 18) that restricts rotational movement of the laminate out of the channel, the extension is spaced away from the bond between the interlayer and interior surface of the glass layer (it is spaced in that the bond is the point of contact between the interior surface of the glass layer and the interlayer), the extension is also

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disposed exteriorly to and in parallel spaced relationship with the major exterior surface of the glass layer (see attached Fig. 2 from Knight, below where the portion below the dotted line denotes a portion exterior the exterior surface and the arrow denotes the direction to show how a portion is parallel to the exterior surface.)



Attached Fig. 2 from Knight

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight.

Claim 4: the species in Figure 2 of Knight discloses the claimed invention except for the use of hooks; however, Figure 8 discloses a species where the structure has a hook portion (79; see also Figure 3, 38). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a hook in conjunction with the support structure because different species of the prior art show hooks being

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used, so modifying one species with another is within the level of ordinary skill in the art at the time the invention was made.

Claim 8: Knight discloses a glass laminate having at least two layers of glass (15, 16), each glass layer having a major exterior surface and a major interior surface (the exterior surface is the surface exposed to the elements and the interior surface is the side exposed to the thermoplastic), at least one thermoplastic interlayer (17) between the glass layers and bonded to the major interior surfaces of the glass layers (as shown), at least one attachment means (18) positioned at a point on the periphery of the laminate, the means is a retaining assembly bonded to a polymer (portions 30, 33, D), this polymer is bonded to the interlayer (17) and to the glass, and this thermoplastic is the same material as the interlayer, the retaining assembly includes a clip (18) useful for aligning and holding the laminate in a retaining channel (applicant should respectfully note that the channel has not been positively claimed), the clip has an interlocking extension (20) useful for restricting movement of the laminate, the extension is spaced away from the bond between the interlayer and the surfaces of the glass (the bond is the actual point of contact between the interlayer and interior surfaces) and the extension is disposed exteriorly to and in parallel spaced relationship with the major

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exterior surfaces of the glass layer (see attached Fig. 2, above and rejection of claim 24 for explanation of how this limitation is met by Knight.) Knight does not disclose that the other polymer is a second polymer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have this as a separate polymer because making the polymer separable or integral is within the level of ordinary skill in the art. *In re Dulberg*, 289 F.2d 522 (CCPA 1961); *In re Larson*, 340 F.2d 965 (CCPA 1965). See M.P.E.P. §2144.04.

Claims 5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight as applied to claims 1 and 24, respectively above, and further in view of Emek (U.S. Patent No. 6,509,071).

Claims 5 and 25: Knight discloses the claimed invention except for the composition of the thermoplastic polymer. Emek discloses a laminate structure with a layer of PVB (Col. 4, lines 1-6). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use PVB as the thermoplastic in Knight because it is functionally equivalent and would perform equally as well.

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Claims 6, 7, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight in view of Emek as applied to claims 5 and 25 above, and further in view of Rullier (U.S. Patent No. 3,822,172).

Claims 6, 7, 26 and 27: the prior art of record discloses the claimed invention except that the polymer is an ionomer. Rullier discloses a glazing unit with an ionomer for a resin (Col. 1, lines 15-25). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an ionomer because it is functionally equivalent to the material used in the prior art of record and would perform equally as well.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knight in view of Bandy (U.S. Patent No. 5,076,034).

Claim 28: the prior art of record discloses the claimed invention except that the glazing panel is used as a curtain wall. Bandy discloses a glazing element used as a curtain wall (Col. 1, lines 10-15). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the glazing element in Knight as a curtain wall because glazing elements are well known in the art for use as

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curtain wall systems and the panel in Knight can be formed to be used as a curtain wall system.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection as applicant amended the claims. Regarding applicant's arguments with respect to the claims as amended, see rejections above.

Drawings:

Applicant's argument to the drawings is noted and the objection is withdrawn.

35 USC §112 Rejection:

Applicant's amendment overcomes the rejection and it is withdrawn.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is

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reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Gilbert whose telephone number is 571.272.9055. The examiner can normally be reached on Monday - Friday, 08:00 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571.272.6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W. V. G./
Examiner, Art Unit 3635
/Basil Katcheves/
Primary Examiner, Art Unit 3635